BY ORDER OF THE COMMANDER,
354TH FIGHTER WING (PACAF)

354 FW INSTRUCTION 48-103

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Aerospace Medicine

BASE RESPIRATORY PROTECTION PROGRAM

COMPLIANCE WITH THIS PUBLICATION IS MANDATORY

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This instruction implements 29 Code of Federal Regulation (CFR) 1910.134, Respiratory Protection, 29 CFR 1910.139, Respiratory Protection for M. Tuberculosis (U.S. Occupational Safety and Health Administration (OSHA) standards); and Air Force Occupational Safety and Health Standard (AFOSH Std) 48-137, Respiratory Protection Program. It applies to all military and civilian personnel employed in any workplace either on Eielson AFB or supported by Eielson AFB where respirators are used. This instruction does not apply to any contract personnel. This instruction does not apply to military-unique nuclear, biological, and chemical (NBC) warfare situations, including NBC exercises. Assigned personnel will not use military-unique respirator devices for respiratory protection during peacetime operations.

This instruction is required to be maintained by all workplaces in which personnel wear respirators for protection against inhalation of harmful atmospheres or for emergency escape and rescue. The purpose of this program is to ensure that all respirator wearers are medically qualified, fitted, and trained to use their respirators. The instruction identifies minimum workplace program.

SUMMARY OF REVISIONS

This document is substantially revised and must be completely reviewed.

1. Responsibilities : General responsibilities for units involved in the respiratory protection program (RPP) are found in AFOSH Standard 48-137. Additional responsibilities regarding implementation of Eielson AFB's RPP are addressed below:

1.1. **Unit Commanders** will:

1.1.1. Support the funding and installation of appropriate engineering controls to eliminate the need for respiratory protection (RP).

1.1.2. Authorize expenditure of unit funds to purchase and maintain individual respirators when the respirators are required or recommended by Bioenvironmental Engineering (BE).

1.1.3. Ensure supervisors of the workplaces where respirators are used receive initial supervisory respirator training from BE each time the workplace supervisor changes.

1.1.4. Decide whether or not to purchase loose-fitting powered air purifying or supplied air positive pressure type respirators for bearded workers after considering the worker's position description and potential exposure.

1.2. **Workplace supervisors** , where respirators are used, are responsible for protecting their workers. The workplace supervisor will:

1.2.1. Appoint, in writing, a workplace RPP Manager. The designated individual will be responsible for ensuring proper issue, maintenance, inspection, and care of all respirators in the workplace, and will be the single point of contact to the base RPP Manager (BE).

1.2.2. Maintain a copy of AFOSH Std 48-137, applicable OSHA standard(s), this instruction, and for supplied air users, AF Technical Order 42B-1-22.

1.2.3. Develop, maintain, and enforce a workplace operating instruction (OI) per guidance in the template available through BE.

1.2.4. Provide a copy of workplace specific RPP OI to BE for approval annually.

1.2.5. Notify BE of new workers to initiate medical evaluation, initial fit testing and training. Ensure that workers are fit tested and trained prior to beginning operations that require RP.

1.2.6. Ensure workers who wear respirators receive fit testing and training at least every 12 months and only wear respirators for operations approved by BE.

1.2.7. Ensure that workers who use any gear that may affect the respirator fit will take the gear with them to their fit test appointment: such as any required/optional head gear (hard hats, hoods, skull caps, 'dew rags', etc.); and any eye protection or corrective lenses/inserts.

1.2.8. Direct workers to the Base Optometry Clinic if corrective lenses are needed while wearing a full-face respirator. Provide the worker with the required kit for mounting the corrective lenses into the respirator. The kits are specific to respirator manufacturer and must be ordered along with the worker's respirator from supply. No inserts are required if worker elects to wear contact lenses.

1.2.9. Maintain a current copy of AF Form 2772, Certificate of Respirator Fit Test, or equivalent, with the worker's AF Form 55, Employee Safety and Health Record.

1.2.10. Document all RP training on the worker's AF Form 55.

1.2.11. Maintain a list of all workers that require respirators, each type of respirator they have been qualified on, and their latest fit test date. Update the list with BE quarterly.

1.2.12. Only issue wearers the specific respirator for which they have received fit testing and training from BE.

1.2.13. Verify that used respirator cartridges/canisters/filters are disposed of in accordance with directions provided by either 354 CES/CEV or BE.

1.2.14. Coordinate "elective-use" of filtering face piece devices in the work place to ensure appropriate use and training.

1.2.15. Notify BEE of any problems with respiratory program effectiveness, respirator fit, selection, use or maintenance that may render RP ineffective in the workplace.

1.2.16. Request additional training for a worker if the supervisor determines the worker has insufficient knowledge of respirator use or the respirator appears to fit improperly.

1.2.17. Request initial and annual training from the Fire Department for Self-contained Breathing Apparatus (SCBA) users.

1.2.18. Identify inconsistencies between AF Technical Orders and the AFOSH Standard to BE. Initiate resolution of the inconsistency through official channels with a coordinated AFTO Form 22.

1.3. **Workplace RPP managers** will:

1.3.1. Act as the single point of contact to the base RPP Manager (BE).

1.3.2. Ensure proper issue, maintenance, inspection, and care of all respirators.

1.3.3. Notify BE of new personnel requiring respirators and ensure workers are NOT issued a respirator until being successfully trained and fitted.

1.3.4. Review and update, as necessary, the workplace specific RPP OI and submit to the workplace supervisor and BEE for approval.

1.3.5. In coordination with the workplace supervisor, provide an updated list of respirator wearers to BE quarterly.

1.4. **Individuals who wear respirators** will be familiar with the requirements in AFOSH Standard 48-137, this instruction, and the workplace RPP OI. They will:

1.4.1. Report to BE for fit testing and training prior to any use of respirators.

1.4.2. Use only government provided respirators, properly and consistently for the hazard and process identified by BE.

1.4.3. Remain clean-shaven to ensure a face-to-face piece seal can be maintained when using a tight-fitting respirator

1.4.4. Clean, sanitize, inspect, and perform the necessary maintenance of the respirator.

1.4.5. Perform either the positive and negative pressure seal checks (as described in 29 CFR 1910.134 Appendix B-1) or the respirator manufacturer's recommended user seal check (if BE confirms it is equally effective) each time a tight-fitting respirator is donned. User seal checks are not substitutes for quantitative fit tests performed by BE.

1.4.6. Report any problems attaining proper seal checks to their workplace supervisor. Consult BE for a new fit-test anytime there are unresolved or recurrent seal problems.

1.4.7. Not wear any equipment in a manner that interferes with the face piece-to-face seal of the respirator.

1.4.8. Not modify or change the respirator in anyway, which would invalidate the National Institute for Occupational Safety and Health (NIOSH) certification.

1.4.9. Report to the workplace supervisor for a new respirator fit-test if he experiences a change in physical condition that could affect respirator fit (e.g., weight change of more than 20 pounds, facial scarring, dental changes, cosmetic surgery, disfigurement, etc.).

1.4.10. Notify the workplace supervisor of any problems with respirator fit, selection, use or maintenance that may render RP ineffective in the work place.

1.5. **Bioenvironmental Engineering (BE)** is the base level authority on respirators. BE will evaluate hazards and accomplish respirator training and fit testing, program monitoring, and core documentation. BE will:

1.5.1. Conduct workplace exposure monitoring and determine RP requirements. Will review all evaluations and determine appropriate respirator type for potential inhalation hazards.

1.5.2. Recommend the appropriate type of respirator, conduct respirator training (except for SCBA), and fit testing (including SCBA) in accordance with paragraphs **3.** and **4.** of this instruction. BE will attempt to "block" schedule workplaces to the maximum extent possible.

1.5.3. Administer respirator medical questionnaire. Will not fit-test potential respirator wearers until medically cleared for respirator use.

1.5.4. Contact the workplace RPP manager to schedule initial fit testing and training after the worker(s) is medically approved for respirator use.

1.5.5. Maintain a record of all workplaces on the RPP, including operations requiring respirators, types of respirators used, and potential hazards, and all workers on RPP along with their latest fit test and training date.

1.5.6. Review copies of workplace specific Operating Instructions (OI) on RPP annually and maintain the copies of the current OI.

1.5.7. Accomplish air sampling (if required) for processes requiring RP.

1.5.8. Inspect workplace respirators to ensure proper use, maintenance, care, and storage at least every 12 months.

1.5.9. Track respirator fit testing and training currency and report status to the Combined Occupational Safety and Health Council annually.

1.5.10. Check the NIOSH web site: **http://www.cdc.gov/niosh/homepage.html** for any new respirator user's notices on a quarterly basis and inform relevant respirator users.

1.6. **Commander, Medical Operations Squadron** will:

1.6.1. Ensure a physician or other licensed health care professional (PLHCP), as defined in 29 CFR 1910.134 (b), medically clears each worker to wear a respirator in accordance with 29 CFR 1910.134 (e). Based on information provided by BE, the PLHCP will annotate on the respirator medical questionnaire his/her professional opinion of the employee's ability to wear the respirator and perform assigned duties.

1.6.2. Through the Primary Care Optimization (PCO) Panels, complete initial and routine medical surveillance of respirator users required by applicable OSHA and AFOSH standards. Will conduct additional medical evaluations if:

1.6.2.1. The respirator user reports medical signs or symptoms that are related to the ability to

use a respirator.

1.6.2.2. The PLHCP, supervisor, or the RPP administrator informs BE that an employee needs to be reevaluated.

1.6.2.3. The information from the RPP, including observations made during fit testing and program evaluation, indicates a need for reevaluation.

1.6.2.4. A change occurs in workplace conditions that may result in a substantial increase in the physiological burden on the respirator user, such as physical work effort, protective clothing, or significant temperature changes.

1.7. **Fire Department** will:

1.7.1. When requested, provide initial and annual training on the use and maintenance of SCBA to teams established for the purpose of responding to emergencies or rescues, such as the CES Hazardous Waste Team, Hydrazine Response Team, and Explosive Ordnance Disposal Team, CE Readiness and BE. This training will be documented on the worker's AF Form 55.

1.7.2. Perform all locally authorized filling and servicing of SCBA air tanks, except routine user preventative maintenance and inspection checks.

1.8. **Base Supply** will control the issue of respirators, not purchased with IMPAC cards, as described in AFOSH Std 48-137. It will:

1.8.1. Ensure any respirators and associated parts issued by supply are approved by BE prior to issue.

1.8.2. Ensure non-IMPAC purchase requests for respirators and parts are coordinated with BE prior to issue.

1.8.3. Ensure NO "SUITABLE SUBSTITUTES" are issued for respirators or parts.

2. Respirator Selection , Use, and Limitations:

2.1. BE determines the proper selection of respirators and cartridges in accordance with criteria in AFOSH 48-137 with emphasis on type and concentration of contaminant(s), duration of exposures, routine or non-routine use, emergency or rescue use, location of work, environmental conditions, etc. All respirators will be NIOSH approved.

2.2. **Once BE recommends** a specific type of respirator, the workplace will have the opportunity to choose the make of respirator to be used in the workplace and workers should be tested on that respirator first. In case a worker cannot be comfortably fit on the respirator chosen by the workplace, BE will maintain sufficient variety of respirator models and sizes so that another respirator will correctly fit and be acceptable to the worker.

2.3. No employee may wear a respirator for an operation for which RP is neither required nor recommended by BE. Filtering face piece device (FFPD) is the only type of RP that may be electively worn, "strictly for comfort purposes," and only after receiving training from the workplace supervisor on the limitations of the devices (training to be documented on AF Form 55).

2.4. **A worker may** request to wear a respirator in accordance with an applicable OSHA expanded standard. BE must approve the request, and training and fit testing must be completed prior to wearing the respirator.

2.5. **Respirators will** not be shared among workers unless specifically approved by BE and identified in the workplace RPP OI.

2.6. **Surgical masks are not** authorized for occupational exposures outside the medical setting. Surgical masks are only appropriate for infection control.

2.7. **Privately procured respirators will not** be worn by any worker.

3. Medical Evaluation, Fit Testing and Training : All respirator users are required to have at least initial medical evaluation and initial and annual training. Tight fitting respirator users are required initial and annual fit testing. Workers who are not medically approved, not current on fit testing and/or training may not perform any operations where respirators are required.

3.1. **Medical Evaluation** : Potential respirator users will not be fit-tested until they are medically approved for respirator use. Medical Group coordination will occur as follows:

3.1.1. Newly assigned workers requiring use of respirators must first report to BE to fill out a Respirator Medical Questionnaire (SF 600 Respirator Overprint).

3.1.2. A PLHCP within 354th Medical Group will review the questionnaire and indicate the individual's restrictions regarding respirator wear. The SF 600 will then be maintained in his medical records.

3.1.3. BEE will contact the worker once the worker is medically approved for respirator usage to schedule initial fit testing and training.

3.2. **Fit Testing** :

3.2.1. Tight-fitting positive pressure respirators (e.g., SCBA, supplied-air respirators (SAR), or powered-air purifying respirators (PAPR)) shall be quantitatively fit-tested in a negative pressure mode. If respirators cannot be reconfigured to a negative pressure respirator (using manufacturer-specific or locally developed adopters), replacement RP should be procured.

3.2.2. BE will fit test workers that must wear corrective lenses with their inserts. If the individual does not have inserts, they will be scheduled for a follow-up appointment to fit test after they receive their inserts.

3.2.3. Workers will not be fit tested if they have facial hair that obstructs the respirator face piece-to-face seal.

3.3. **Training** : BE will conduct initial and annual fit testing and training (except for SCBA users) concurrent with fit testing. For supervisors of RP workplaces, BE will also provide supervisors' initial training. All RP training will be documented by the supervisor on the AF Form 55.

3.3.1. As requested, the Fire Department will provide initial and annual training for workers who wear SCBA.

3.3.2. Respirators used for emergency escape do not require fit testing; however, workplace supervisors will ensure personnel (including visitors) are trained, in accordance with the manufacturer's instructions, in the use of the emergency escape device.

3.4. **Respirator User Certification.** BE will certify workers with an AF Form 2772 or equivalent for each authorized respirator. The certification will include all operations approved for respirator use.

3.4.1. Documentation of fit test and training is kept in the respirator database. Individuals will receive a copy of the certification to be kept with their AF Form 55s.

3.4.2. The certification is valid for one year from the date on the AF Form 2772, unless a task changes. Any changes in a task listed on the attachment invalidate the respirator authorization for that task. Changes in a task include, but are not limited to: change in job duration or frequency, changes of chemicals or materials used, or change of personal protective equipment that may interfere with the respirator fit.

3.4.3. Any condition that may change the fit of the respirator also invalidates the certification.

4. Care , Inspection, and Maintenance of Respirator.

4.1. **Care** : The respirator users will clean, sanitize, and store respirators in accordance with AFOSH Std 48-137, para 8.2. or the respirator manufacturers' recommendations. Respirators must be stored at a location that is convenient, clean, and sanitary, and they will not be hanged by the headstrap.

4.2. **Inspection** : The respirator user shall inspect the respirator before and after each use to ensure that it is in proper working condition and that all parts are serviceable.

4.2.1. Inspection of the respirator will be done in accordance with AFOSH Std 48-137, para 8.3. or the respirator manufacturer's recommendations.

4.2.2. All respirators stored for emergency or rescue use and all SCBAs shall be inspected at least monthly. The record of inspection shall be maintained on AF Form 1071, Inspection/ Maintenance Record

4.3. **Maintenance:** The respirator users are not authorized to repair respirators, only replace parts (i.e. valves, face shields, cartridges, etc.). Perform maintenance during routine inspections (i.e. before and after each use of the respirator). If the respirator is not routinely worn (e.g. emergency response respirators), inspections and required maintenance must be accomplished at least every 30 days, more often if necessary to maintain the integrity of the respirator. Maintenance must follow manufacturer guidance and will include:

4.3.1. Replacing worn or deteriorated parts with the manufacture specific parts (items designed for that respirator). Interchange of parts between types or manufacturers voids the certification of the respirator.

4.3.2. Changing filters/cartridges/canisters as directed by training received, and indicated in the workplace RPP OI.

4.3.3. Maintaining written records (i.e. AF Form 1071, Inspection and Maintenance Record) of maintenance for one year.

4.3.4. No attempt will be made to repair, replace components, or make adjustments beyond the manufacturer's recommendations. Repairs beyond basic maintenance will be returned to the manufacturer or other trained technician.

5. Respirable Air for SCBA and Supplied Air Respirators : Compressed air used for respiration shall be of high purity and meet at least the requirements of specifications for Type I – Grade D breathing air and tested according to the T.O. 42B-1-22 and AFOSH Std 48-137, Attachment 13.

5.1. **Carbon Monoxide alarms** shall be installed on all compressor systems used to produce compressed breathing air. The alarm shall be located between the purifier and the filling manifold or air-line respirator. Alarms shall be visible and audible to the respirator wearer. It shall be set at 10 ppm. The user shall perform operational check using the standard before use and schedule calibration every 180 days. If a CO alarm has not yet been installed follow the guidance of the T.O.

5.2. **Any workplace** using compressed air must conduct breathing air sampling in accordance with AF Technical Order 42B-1-22 and send BE a copy of sampling results within two weeks of receiving the results.

6. Procedures for Program Evaluation : BE will evaluate Base RPP annually and report the findings in writing to the Aerospace Medicine Council and the Wing Combined Occupational Safety and Health Council.

JAN-MARC JOUAS, Colonel, USAF
Commander